

Transit Asset Inventory Development & Integration





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Metro St. Louis

- Provides transit service for the St. Louis metropolitan area including the City of St. Louis, St. Louis County in Missouri and portions of several southern Illinois counties
 - In FY11, annual ridership for the system was over 47 million trips.
- MetroLink operates 87 light rail vehicles (LRVs) on two lines
 - 37 Stations along 46 miles of alignment
 - Two LRV maintenance facilities
- MetroBus operates 411 buses
 - MetroBus services 60 routes operating in Missouri and 17 routes operating in Illinois
 - Three bus maintenance facilities
- Metro Call-A-Ride, a Paratransit van system
 - A separate facility in Missouri houses the bus maintenance and paratransit services
- Metro Operates
 - 300 nonrevenue vehicles
 - Headquarters facility, as well as additional parking and other facilities



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Project Overview

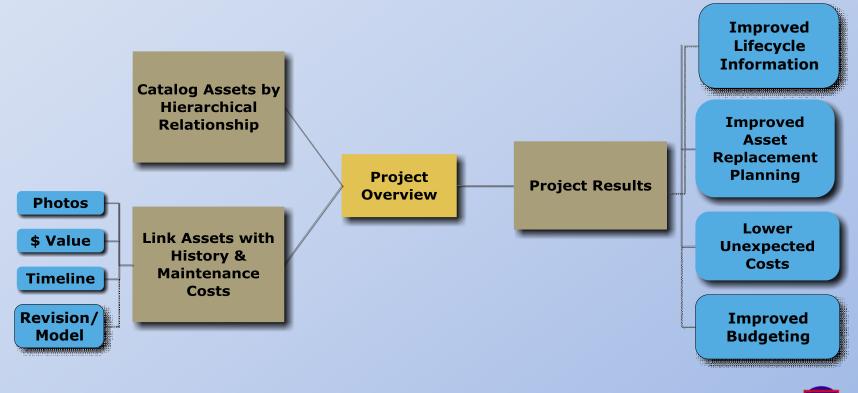
- Project Objectives and Goals
 - ➤ This research project seeks to comprehensively address how urban rail transit agencies can leverage data in their maintenance management systems to build asset inventories for higher-level analysis to optimize investments in urban bus/rail capital assets
 - ➤ The team will also ensure hierarchical structures are considered and whole-vehicle and system-level information is captured. In addition, life-cycle information will be captured to support reliability improvements, asset warranties and reinvestment requirements







Project Overview Cont.

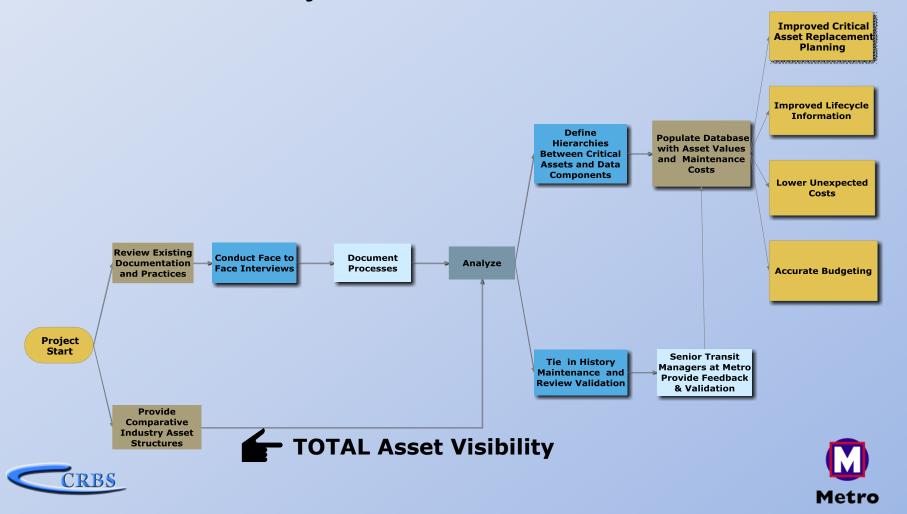








Project Collaboration





Project Deliverables/End Products

- Provide a draft reference document defining recommended industryintegrated standard asset inventory structures, data elements, and hierarchical relationships.
- Document and illustrate how larger capital items are related through the proposed hierarchical relationships to data recorded in maintenance management systems







Benefits to Transit Agencies

- Documented process that guides transit agency's decisions on how to leverage data in their Management Information System to optimize investments in urban bus/rail capital assets
- Define a process to develop a comprehensive list of critical assets and the key sub-components required for SGR data reporting
 - Including visibility of bus, rail and all critical fixed assets such as bridges, rail crossings, and operations/maintenance facilities
- Develop a complete and accurate record reflecting the value and condition of assets throughout their lifecycle
- Comprehensive view of critical asset throughout its lifecycle
- Total Asset Visibility







Asset Inspection and Maintenance System (AIMS)

Metrolink Structure Directory Group Mile Post 15.40 to 16.25 Name Eads Bridge & Piers Maps Google Bing





Structure Files

- 1990 Existing Plans
- 2002 Repair Plans (As-Built)
- Maintenance/Repair History
- Photographs

Evaluation Reports

- 2010 Inspection Report/Database
- 2009 Inspection Report
- 2008 Inspection Report/Database
- 2007 Inspection Report/Database
- 2006 Inspection Report/Database
- 2005 Inspection Report/Database
- 1999 Inspection Report

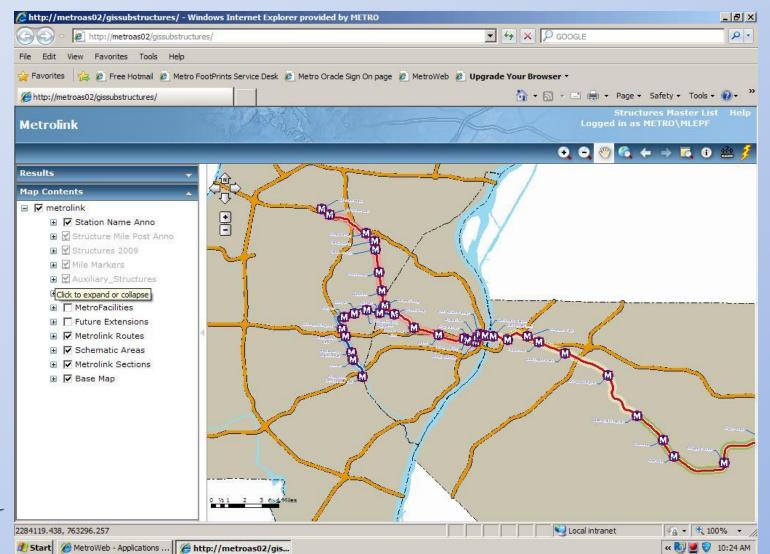
Structure Specific Files







Asset Inspection and Maintenance System (AIMS)









Asset Inspection and Maintenance System (AIMS)

- AIMS provides a single point to obtain asset and maintenance and inspection data for all Metrolink structures
- Metro applies an industry condition rating
- Prioritize capital investment based on the most critical system need
- Developed in 2008
 - Metro developed and managed
 - Currently has Metrolink systems structures
 - Will add all stations to AIMS
- Data from this project will feed hierarchical break down for structures to this database







Current Project Status

- Kick-off meeting
- Developed detailed work plan
- Conducting interviews with all Metro departments involved with asset management
- Reviewing and analyzing all management/maintenance information systems
- Reviewing existing Maintenance of Way data and defining the process







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